

MOVING BEYOND  
THE INSTITUTION:  
HOW CAN  
ARCHITECTURE  
IMPROVE THE  
QUALITY OF LIFE FOR  
OLDER PEOPLE WITH  
DEMENTIA?

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# INTRODUCTION

What is the link between dementia and architecture?

50 million people  
world wide have  
dementia (WHO,  
2020)



1/3 of people with  
dementia live on their  
own in the  
community (Dementia  
Partnerships, 2014)



1 In 4 people in  
hospitals have  
dementia (Dementia  
Partnerships, 2014)



# METHODOLOGY

Literature  
Review



Case Study  
Analysis



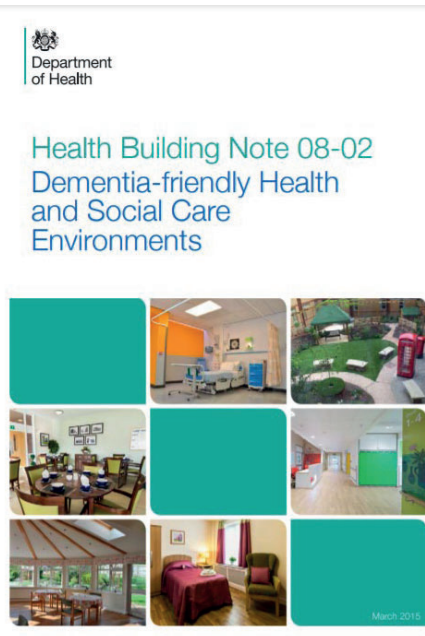
Mainstream  
Home Analysis



Survey



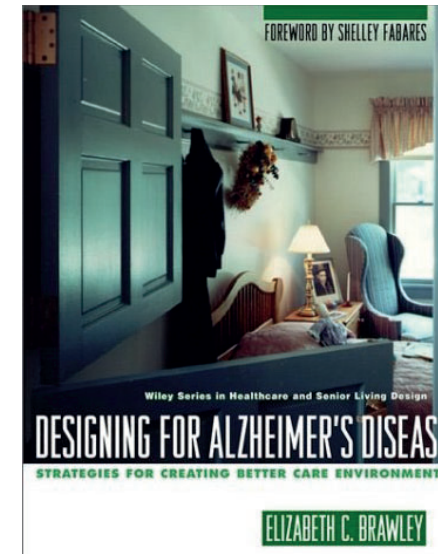
Conclusion



2015 Uk Department of Health HBN report on General design guidance for Dementia-friendly Health and Social Care Environments as the main framework. A critical evaluation of 3 out of 12 design principles:

- 1. Provide a non-institutional scale and environment**
- 2. Support way-finding and navigation**
- 3. Provide access to nature and the outdoors**

Department of Health and Social Care (2015)

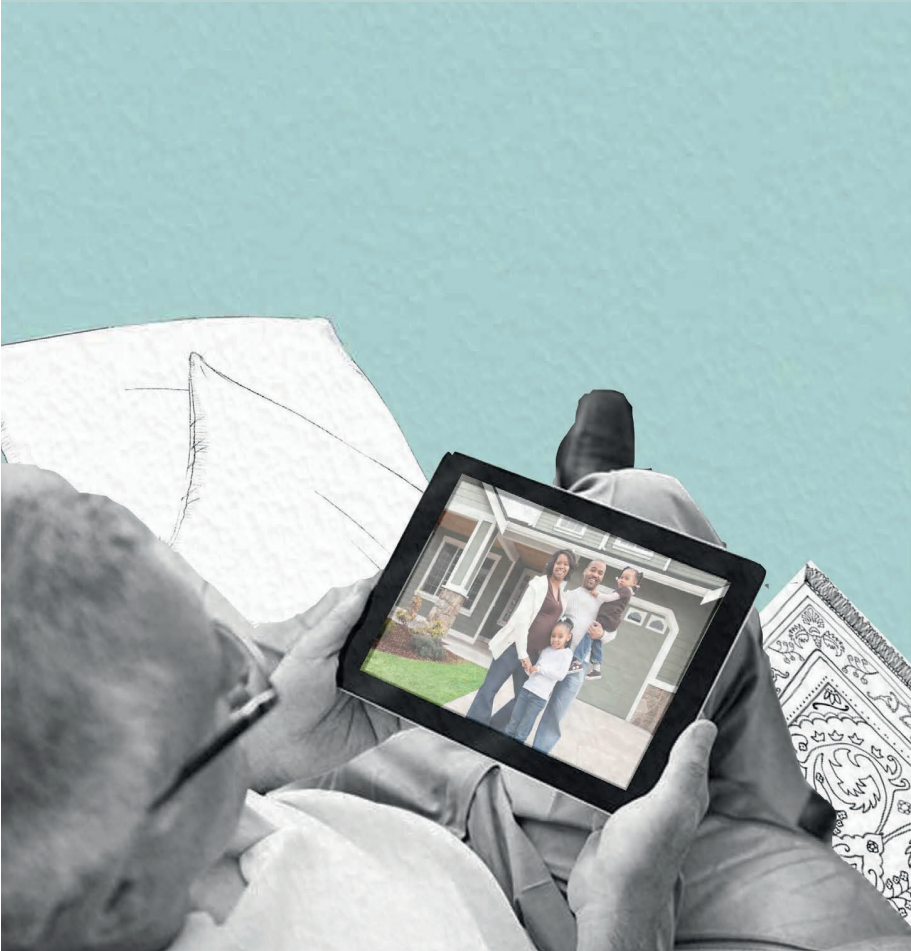


AbeBooks (2020)

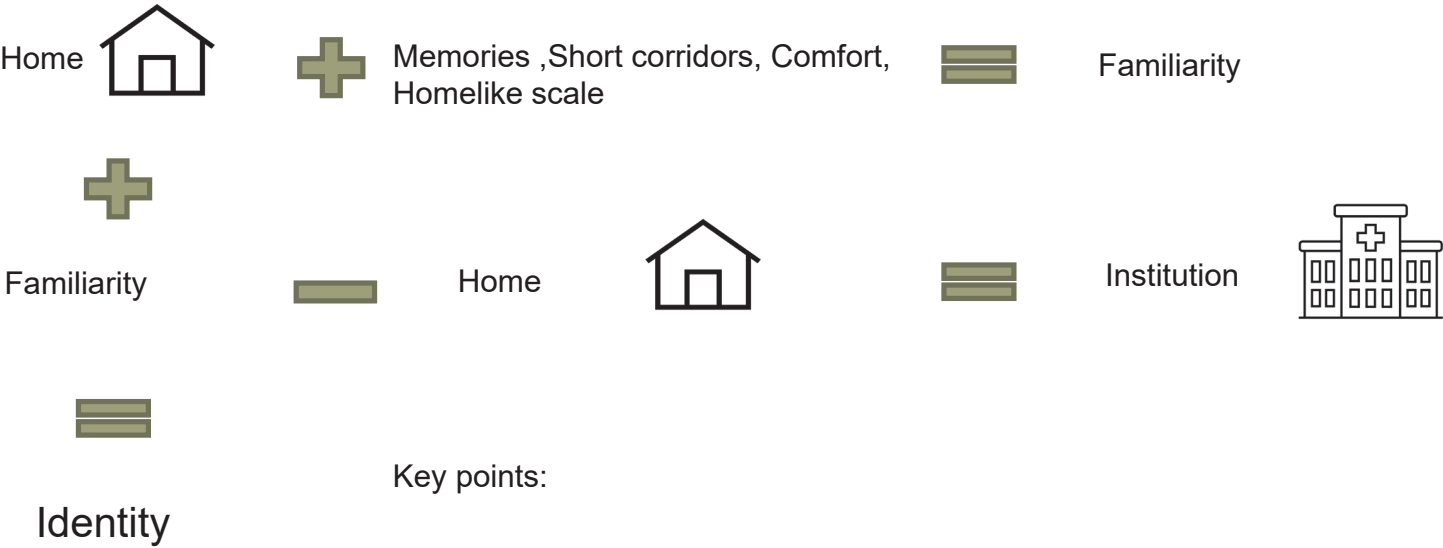


# CHAPTER 1.1: I WANT TO GO HOME?

Design principle 1: Provide a non-institutional scale and



Elizabeth Brawley (1997) argues that “existing care settings still too often resemble a hospital care setting, an inappropriate design model for persons with Alzheimer’s disease or care for frail elderly”.



# CHAPTER 1.2: WHERE AM I ?

## Design principle 2 : Support way-finding and navigation



*mishap of disorientation occurs once. (...) One man recognises a room by a small sign; another knows a street by the tram car numbers. If symbols are tampered with man is lost (...) The terror of being lost comes from the necessity that a mobile organism be orientated in its surroundings (Lynch, 1960, pp.4-5)".*



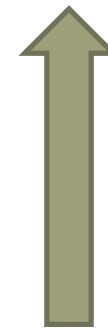
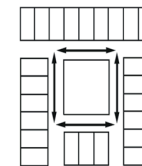
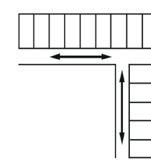
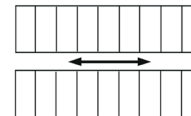
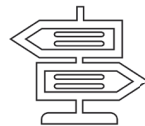
Environmental cues



Form



Successful way finding



Improved by:  
-design principle of  
wayfinding incorporating  
all senses as individual  
perception varies

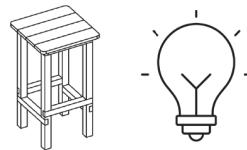
# CHAPTER 1.3: IS IT NICE OUTSIDE?

Design principle 3: provide access to nature and the outdoors

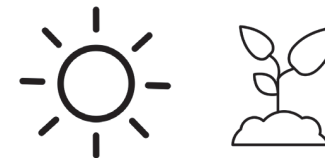


“Biophilic design studies the impact of environmental qualities such as light, colour, space, shape, air, materials, and vegetation on human physiology and psychology and, by having this knowledge, the architects and designers can mindfully shape the space to improve human experiences that occur when interacting with these qualities” (According to DeGroff, and McCall, (2016) )

Indirect



Direct


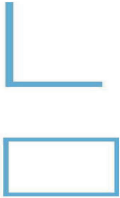
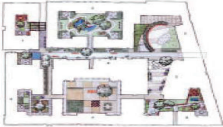








Connection to  
nature





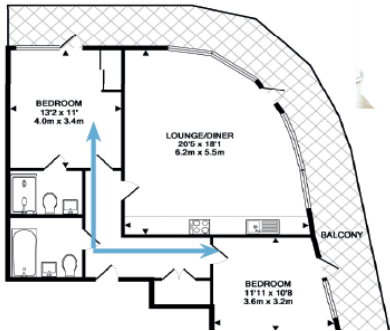
# CHAPTER 2: CASE STUDY ANALYSIS

Case study	Provide a non-institutional scale and environment	Support way-finding and navigation	Provide access to nature and the outdoors
De Hogeweyk (Netherlands)	Approach to home is semi friendly, the fact that it is located near residential developments makes it less institutionalised 	Circulation type 	6 different gardens 
Cohen Rosen house (America)	Approach to home is friendly 	Circulation type 	Memory garden 
William curtis Alzheimers respite centre (Ireland)	Located in secluded area, presence of brick wall comes across quite institutional 	Many wandering loops with open plan layout. Circulation type 	Access to out door spaces 



# CHAPTER 3: ENABLING ENVIRONMENTS -CRITICAL ANALYSIS OF A MAINSTREAM HOUSING

## Analysis of an apartment



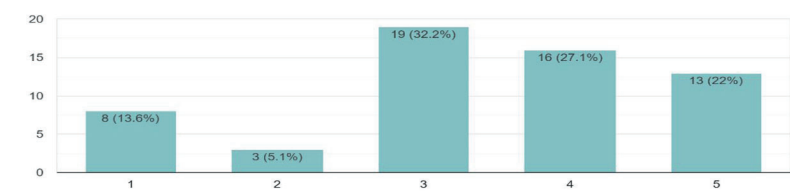
Comparison between universal design principles and dementia design principles (Owuasu, 2021)



key: Positive correlation <input checked="" type="checkbox"/> compatible with dementia design principles= <input checked="" type="checkbox"/> zero correlation/ contradiction with dementia design principles <input type="checkbox"/>		Dementia-friendly		
		1.1: Provide a non-institutional scale and environment	1.2: Support way-finding and navigation	1.3: Provide access to nature and the outdoors
Universal design	1 Principle 1: Equitable Use  Provide the same means of use for all users; identical whenever possible; equivalent when not.	<input type="checkbox"/>  <input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Principle 2: Flexibility in Use  2d. Provide adaptability to the user's pace Provide choice in methods of use, 2b. Accommodate right- or left-handed access and use, 2c. Facilitate the user's accuracy and precision.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Principle 3: Simple and Intuitive Use  Eliminate unnecessary complexity. 3b. Be consistent with user expectations and intuition. 3c. Accommodate a wide range of literacy and language skills. 3d. Arrange information consistent with its importance. 3e. Provide effective prompting and feedback during and after task completion	<input type="checkbox"/> <input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

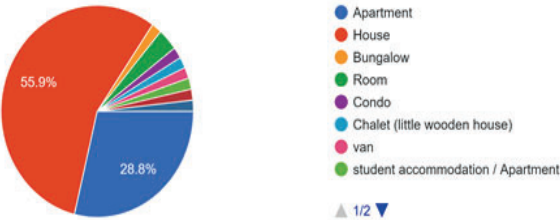
# SURVEY RESULTS

On a scale of 1 to 5, how effective do you believe the use of signage is in the form of pictures and words in communal areas or within your home is?  
59 responses

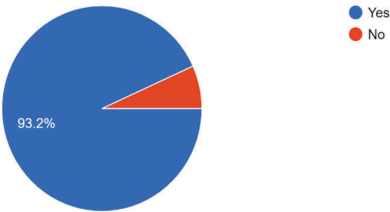


*I have put signs on cabinets and drawers in the kitchen, but it doesn't stop him from getting confused about where things go, even though they've gone in the same place since before he had dementia.*

4. What type of home do you reside in?  
59 responses

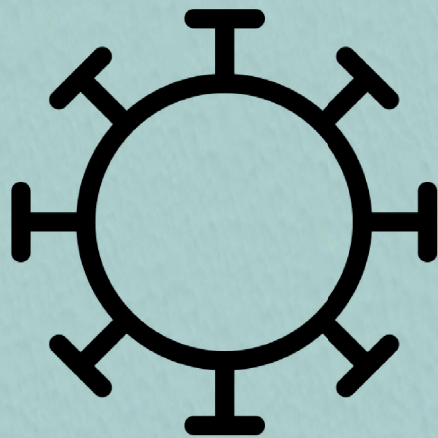


Do you have access to outdoor space either in the form of, e.g. window, balcony, communal outdoor area?  
59 responses



*“As I don't have any children or family to help look after me when I'm really old and less independent, I will most likely end up in a Care home. My preferred option though, would be to essentially house share again with more of our lifelong friends. This is my plan if I can make it happen, as we can all help each other out, have great companionship, share stories and memories ... continue to see each others families and so also be a part of their lives. We can remain independent for longer, with everyone lending a hand, supporting and looking out for each other. If needed, we could also share the services of a carer. By house-sharing, you can still play a part in decorating all areas to make it feel like your home and you're more likely to be guaranteed direct access to a garden. Companionship is so important for mental health. When physical health deteriorates, it makes people more isolated from the community. Care homes can provide easy access to companionship, but you often find people don't have interest in making new friends, they'd be happier seeing their actual loved ones.”*

# CONCLUSION



- Dementia design principles should not just be reserved for the care home typology but implemented in all housing typology.
- Early integration of dementias design principles into mainstream homes may enable individuals with dementias to live independently in their own home rather than moving into care home settings.
- Overall in light of the COVID-19 pandemic far broader discussions of dementia design principles, government policies and planning would need to be discussed.
- Predictions: Dementia design principles need to adapt to changing future climate otherwise there is a greater risk of the quality of life for individuals with dementia suffering



THANK YOU